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## Exercise Roving Sands

SMDC lends situational awareness expertise to test common command post concept

By Debra Valine

FORT BLISS, Texas — In a nondescript beige building on Fort Bliss — far away from the action of EXERCISE ROVING SANDS 05 — important work is being done.

Taking a live feed from the actual exercise, a team of government and contractor employees are testing an Air and Missile Defense concept that involves two weapons systems: Patriot and Avenger/SLAMRAAM (Surface Launched Advanced Medium Range Air-to-Air Missile).

“We asked the Space and Missile Defense Com-

mand to support us in this effort,” said Chief Warrant Officer 3 Odie Huffman, AMD Battle Lab’s project officer for the experiment. “This partnership is invaluable. What we brought to the table is basically the need — the requirement — to do this based on real world events. We are incorporating lessons learned from OPERATION IRAQI FREEDOM. SMDC brings considerable technical expertise. We are coming together to try to work through some issues. We have a long way to go.”

Inside the Common Command Post, operators sit at computer terminals watching large video displays that



CWO3 Michael Hamlin, left, and CWO3 Odie Huffman, Air and Missile Defense Battle Lab, Fort Bliss, Texas, project managers for the Common Command Post Joint Experimentation Test and Evaluation Advanced Concept Technology Demonstration, check out the capabilities of the Future Operational Capability/Tactical Operations Center II Testbed during EXERCISE ROVING SANDS, March 31, at Fort Bliss. *Photo by Debra Valine*

are monitoring the skies over the exercise areas, looking for any sign of an incoming threat missile or aircraft. Avenger/SLAMRAAM and Patriot weapon systems stand ready to shoot them down.

And that's what the Air Defense Community is looking for — a common command post that can participate on the battlefield using multiple weapon systems.

SMDC provided its Future Operational Capability/Tactical Operations Center II Testbed to support the Common Command Post Joint Experimentation Test and Evaluation Advanced Concept Technology Demonstration (CCP JETA ACTD).

"The experimental command post includes two Reconfigurable Tactical Operations Simulators representing a Patriot Information Coordination Center and a SLAMRAAM Integrated Fire Control System in lieu of the actual systems," said John Robinson, of SMDC's Future Warfare Center. "Also included are the Northrop Grumman Gateway manager and Thales Raytheon Systems Sentry correlator as well as SMDBL's Advanced Warfare Environment (AWarE) software. Satellite Tool Kit, ArcView (with TIGER) and Battlescape are used as graphical interfaces by the battle captain staff which includes the battle captain, the S-2 intelligence officer and the S-3 operations officer."

The FOC Testbed Program is a hardware and software technology testbed that allows SMDC to demonstrate emerging technologies and concepts in a warfighter context to support systems requirements definition for both system developers and industry. In its current form, the FOC Testbed permits warfighters to conduct exercises, experiments and combat operations with an enhanced decision-making capability using a significantly reduced footprint.

"The CCP JETA is an experiment to align command and control functions within a central command post to control air defense battlefield operations and to direct coordinated fire control efforts for multiple weapon systems," Robinson said. "The results of this experiment, along with previous efforts, will contribute to the combat developer's CCP requirements definition process. Findings also will be shared with the System of Systems office of the U.S. Army Air, Space, and Missile Defense Program Office, which is tasked with establishing a System of Systems user lab at Redstone Arsenal, Alabama. This experiment is using the Roving Sands and Joint Red Flag 2005 military exercises to generate activity for the experiment's equipment."

The SMD Battle Lab had previously participated using this equipment and software during Exercise Amalgam Virgo 04 at

Tyndall Air Force Base, Fla., in August 2004.

Exercise Roving Sands is a three-week joint air training exercise involving U.S. and coalition troops and aircraft to practice joint air defense interoperability and incorporate lessons learned from OPERATION IRAQI FREEDOM. Roving Sands is part of the larger exercise Joint Red Flag, a multi-service and multi-national exercise involving 12,000 participants at various locations across the U.S. Allied forces from the Netherlands, United Kingdom, Canada and Kuwait are participating this year. The exercise focuses on Joint Theater Air and Missile Defense (JTAMD) and Joint Tactical Air Operations while integrating Army, Air Force, Navy and Marine Corps command and control nodes and associated air and missile defense systems.

"This CCP JETA concept came about as a method to inform the TSM (Training and Doctrine Command System Manager) here and inform our Directorate of Combat Developments requirements people about System of Systems integrated fire control and also to help understand fire control solutions for air and missile defense battalions that are standing up," Huffman said. The new air defense units are a composite of Patriot and Avenger missile batteries.

"There are three parts to the CCP JETA," Huffman said. "We have the FOC studio, along with a team from the Boeing Co. and their software. Boeing is using this exercise as a way to develop and improve their software. And we have the Acoustic Research Lab and MILTEC from the University of Mississippi. They have four engineers located north of Nellis Air Force Base, Nev., who are collecting some acoustic data on cruise missiles.

"Without SMDBL, we would not be able to do this," Huffman said. "We would have to use simulation. We are using real components, taking live feeds and we are exercising engagement operations and force operations using real equipment. We are using real operators so we get a lot more in-depth feedback about how things are really working. The problems we solve here have real application to the future force. This is not a science experiment."

Debra Valine is a public affairs specialist with U.S. Army Space and Missile Defense Command and functions as the editor of *The Eagle*. She retired from the Army in 1997 after a tour as the chief of Army newspapers at the Pentagon. Following retirement, she worked three years as the editor of the only weekly paper in NASA before accepting her current position in SMDC.